### Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2016

### **Reclamation District No. 2085 Kasson**

| Waterway                      | Bank | Unit Miles | Inspection<br>Start/End  | Inspector           |
|-------------------------------|------|------------|--------------------------|---------------------|
| Unit No. 01 San Joaquin River | Left | 5.29       | 10/19/2016<br>10/19/2016 | Maksim<br>Khashchuk |

|  | Rating **                       | Α   | Issue No.  |   | 7   |   |  |  |
|--|---------------------------------|---|--|---|---|---|--|--|
|  | Issue Type +                    | Ма  | Location *   | N/A   |   |   |  |  |
| Category Earthen Levee                     |                                 |   |  |   | le/Longitude  |   |  |  |
|  |                                 |   | Start  |   | End   |   |  |  |
|  | s & Maintenai                   | nce   |  | 0   |   | 0   |  |  |
| Manuals                                    |                                 |   |  | 0   |   | 0   |  |  |
| DWR ID DWR_RD2085_01_s _ 2013_7            |                                 |   |  |   |   |   |  |  |
| Comment Code                               |                                 |   |  |   |   |   |  |  |
|  |                                 |   |  |   |   |   |  |  |
|  |                                 | _   |  |   |   |   |  |  |
|  | Inspecto                        | or Comm   | nent   |   |   |   |  |  |
| The O&M Manual is available at the office. |                                 |   |  |   |   |   |  |  |
|  |                                 |   |  |   |   |   |  |  |
|  |                                 |   |  |   |   |   |  |  |
|  |                                 |   |  |   |   |   |  |  |
|  | Operation<br>Manuals<br>DWR_RD2 | Issue Type + Earthen Levee  Operations & Maintenar Manuals  DWR_RD2085_01_s _ 201  Comm | Issue Type + Ma Earthen Levee  Operations & Maintenance Manuals  DWR_RD2085_01_s _ 2013_7  Comment Coc  Inspector Comm | Issue Type + Ma Location *  Earthen Levee GPS La Start  Operations & Maintenance Manuals  DWR_RD2085_01_s _ 2013_7  Comment Code  Inspector Comment | Issue Type + Ma Location *  Earthen Levee GPS Latitud Start  Operations & Maintenance Manuals  DWR_RD2085_01_s _ 2013_7 Comment Code  Inspector Comment | Issue Type + Ma Location * N/A  Earthen Levee GPS Latitude/Longitude Start End  Operations & Maintenance Manuals  DWR_RD2085_01_s _ 2013_7  Comment Code  Inspector Comment |  |  |

No Photos

Issue No. LM Start Rating \*\* Α Location \* Issue Type + N/A Ма LM End Earthen Levee GPS Latitude/Longitude Category Start End Emergency Supplies & Item Equipment DWR RD2085 01 s 2013 9 DWR ID Comment Code Inspector Comment Flood fighting supplies are available at the River Club.

No Photos

N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence En: Enforcement

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2016

### **Reclamation District No. 2085 Kasson**

| Waterway                      | Bank | Unit Miles | Inspection<br>Start/End  | Inspector           |
|-------------------------------|------|------------|--------------------------|---------------------|
| Unit No. 01 San Joaquin River | Left | 5.29       | 10/19/2016<br>10/19/2016 | Maksim<br>Khashchuk |

| LM Start          |   | Rating **    | Α        | Issue No.  |        | 14           |   |  |  |  |
|-------------------|---|--------------|----------|------------|--------|--------------|---|--|--|--|
| LM End            |   | Issue Type + | Ma       | Location * |        | N/A          |   |  |  |  |
| Category          | Earthen L                                       | evee         |          | GPS La     | atitud | le/Longitude |   |  |  |  |
| Calegory          |   |              |          | Start      |        | End          |   |  |  |  |
| Item              | Flood Pre                                       | paredness &  | Training |            | 0      |              | 0 |  |  |  |
| пеш               |   |              |          |            | ٥      |              | 0 |  |  |  |
| DWR ID            | DWR ID DWR_RD2085_01_s _ 2013_14                |              |          |            |        |              |   |  |  |  |
|                   |   | Comn         | nent Coc | le         |        |              |   |  |  |  |
|                   |   |              |          |            |        |              |   |  |  |  |
|                   |   |              |          |            |        |              |   |  |  |  |
| Inspector Comment |   |              |          |            |        |              |   |  |  |  |
| The LMA h         | The LMA has a flood fighting plan and training. |              |          |            |        |              |   |  |  |  |
|                   |   |              |          |            |        |              |   |  |  |  |

No Photos

| LM Start                         | 0.12          | Rating **      | A/W      | Issue No.  |       | 19           |  |
|----------------------------------|---------------|----------------|----------|------------|-------|--------------|--|
| LM End                           | 0.47          | Issue Type +   | Ma       | Location * | CR    |              |  |
| Catagory                         | Earthen Levee |                |          |            | tituc | le/Longitude |  |
| Category                         |               |                |          | Start      |       | End          |  |
| Item                             |               | rface / Depres | ssions / | 37.7190    | 52°   | 37.723246°   |  |
| item                             | Rutting       |                |          | -121.30292 | 28°   | -121.299492° |  |
| DWR ID DWR_RD2085_01_f _ 2015_19 |               |                |          |            |       |              |  |
|                                  |               | Comn           | ant Car  | ام         |       |              |  |

#### **Comment Code**

C1 : Add appropriate material and re-grade the levee to bring the crown above the design elevation.

### Inspector Comment

Disking on the levee shoulder. Make sure the water drains evenly to the slopes.

#### Photo 1 of 1 : FA\_2016\_RD2085\_113\_19\_20160914\_00007.jpg



View of the disking on the levee crown shoulder.

| LM Start                         | 1.79          | Rating **    | М     | Issue No.  |       | 39           |  |
|----------------------------------|---------------|--------------|-------|------------|-------|--------------|--|
| LM End                           | 1.79          | Issue Type + | Ma    | Location * | WS    |              |  |
| Category                         | Earthen Levee |              |       |            | titud | e/Longitude  |  |
| Category                         |               |              | Start |            | End   |              |  |
| Item                             | Animal Co     | ontrol       |       | 37.71145   | 56°   | 37.711456°   |  |
| пеш                              |               |              |       | -121.28239 | 97°   | -121.282397° |  |
| DWR ID DWR_RD2085_01_s _ 2016_39 |               |              |       |            |       |              |  |
|                                  |               | 0            |       | I.         |       |              |  |

#### Comment Code

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

#### Inspector Comment

LMA has bait stations on the levee

## Photo 1 of 1 : FA\_2016\_RD2085\_113\_39\_20160914\_00016.jpg



View of the rodent burrows on the landside levee slope.

| * Location   | ** Rating  |   | + Issue Type   |
|--|--|---|--|
| LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown | A : Acceptable M : Minimally Acceptable U : Unacceptable | N : Not Inspected/Rated<br>C : Corrected<br>A/W : Acceptable but Monitor & Maintain | Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement |

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2016

### **Reclamation District No. 2085 Kasson**

| Waterway                      | Bank | Unit Miles | Inspection<br>Start/End  | Inspector           |
|-------------------------------|------|------------|--------------------------|---------------------|
| Unit No. 01 San Joaquin River | Left | 5.29       | 10/19/2016<br>10/19/2016 | Maksim<br>Khashchuk |

| LM Start     | 2.56         | 2.56 Rating ** M |    |            |     | 1            |  |  |
|--------------|--------------|------------------|----|------------|-----|--------------|--|--|
| LM End       | 2.58         | Issue Type +     | Ma | Location * | WS  |              |  |  |
| Category     | Supplemental |                  |    |            |     | le/Longitude |  |  |
| Calegory     |              | Start            |    | End        |     |              |  |  |
| Item         | DWR Ero      | sion Survey      |    | 37.7030    | 94° | 37.703094°   |  |  |
| item         |              |                  |    | 121.2748   | 94° | 121.274894°  |  |  |
| DWR ID       |              |                  |    |            |     |              |  |  |
| Comment Code |              |                  |    |            |     |              |  |  |

#### Inspector Comment

07/08/2016: No significant change observed.

09/10/2015: No significant change observed. Signs of animal activity are present.

09/10/2014: No significant change observed.

09/20/2013: No significant change in erosion observed. More vegetation at the site.

12/04/2012: The erosion has progressed remarkably toward levee, extended to the up-and downstream of the original pocket erosion.

Trees and dense bush are present at the site. Animal burrow holes are visible, and possibly can cause seepage.

09/22/2010: No significant change observed. There is little visibility due to seasonal grass on the berm and slope.

08/18/2009: Site is located on berm; pocket erosion has developed; the site is covered in dense vegetation; there are several relief wells on the landside of the levee; site is Not Rated because berm width is greater than 30 feet; site should be monitored to keep track of erosion progress. [2016 Site ID:RD2085U01RM66.5]

| LM Start | 2.56 | Rating **    | М  | Issue No.  | 1 (cont) |
|----------|------|--------------|----|------------|----------|
| LM End   | 2.58 | Issue Type + | Ma | Location * | WS       |





Close view of the erosion.

#### Photo 2 of 3: SJR2016 RD2085U01RM66.5 3.jpg



Direct view of the erosion. Note the dense vegetation at the site.

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2016

### **Reclamation District No. 2085 Kasson**

| Waterway                      | Bank | Unit Miles | Inspection<br>Start/End  | Inspector           |
|-------------------------------|------|------------|--------------------------|---------------------|
| Unit No. 01 San Joaquin River | Left | 5.29       | 10/19/2016<br>10/19/2016 | Maksim<br>Khashchuk |

| LM Start     | 2.56     | Rating **    | М            | Issue No.  |     | 1 (cont)    |
|--------------|----------|--------------|--------------|------------|-----|-------------|
| LM End       | 2.58     | Issue Type + | Ма           | Location * |     | WS          |
| Supplemental |          |              | Supplemental |            |     | e/Longitude |
| Calegory     | Category |              |              |            |     | End         |
| Item         | DWR Ero  | sion Survey  |              | 37.7030    | 94° | 37.703094°  |
| пеш          |          |              |              | 121.2748   | 94° | 121.274894° |
| DWR ID       |          |              |              |            |     |             |

# Comment Code

#### Inspector Comment

07/08/2016: No significant change observed.

09/10/2015: No significant change observed. Signs of animal activity are present.

09/10/2014: No significant change observed.

09/20/2013: No significant change in erosion observed. More vegetation at the site.

12/04/2012: The erosion has progressed remarkably toward levee, extended to the up-and downstream of the original pocket erosion.

Trees and dense bush are present at the site. Animal burrow holes are visible, and possibly can cause seepage.

09/22/2010: No significant change observed. There is little visibility due to seasonal grass on the berm and slope.

08/18/2009: Site is located on berm; pocket erosion has developed; the site is covered in dense vegetation; there are several relief wells on the landside of the levee; site is Not Rated because berm width is greater than 30 feet; site should be monitored to keep track of erosion progress. [2016 Site ID:RD2085U01RM66.5]





Close view of the erosion.

| LM Start                         | 2.90           | Rating **    | A/W     | Issue No.   |             | 21          |   |
|----------------------------------|----------------|--------------|---------|-------------|-------------|-------------|---|
| LM End                           | 2.90           | Issue Type + | Ма      | Location *  |             | LS          |   |
| Category Earthen Levee           |                |              | GPS La  | atitud      | e/Longitude |             |   |
| Category                         | Zategory —     |              | Start   |             | End         |             |   |
| Item                             | Animal Control |              | 37.6987 | 00°         | 37.698700   | 0           |   |
| пеш                              |                |              |         | -121.277199 |             | -121.277199 | 0 |
| DWR ID DWR_RD2085_01_f _ 2015_21 |                |              |         |             |             |             |   |
| Comment Code                     |                |              |         |             |             |             |   |

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

#### Inspector Comment

This area should be monitored for possible rodent activity.

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2016

## **Reclamation District No. 2085 Kasson**

| Waterway                      | Bank | Unit Miles | Inspection<br>Start/End  | Inspector           |
|-------------------------------|------|------------|--------------------------|---------------------|
| Unit No. 01 San Joaquin River | Left | 5.29       | 10/19/2016<br>10/19/2016 | Maksim<br>Khashchuk |

| LM Start          | 2.96  | Rating **      | С        | Issue No.  |               | 41           |
|-------------------|---|----------------|----------|------------|---------------|--------------|
| LM End            | 2.96  | Issue Type +   | Ma       | Location * |               | LS           |
| Category          | Earthen L   | evee           |          | GPS La     | atitud        | le/Longitude |
| Calegory          |   |                |          | Start      |               | End          |
| Item              | Animal Control  |                |          | 37.698050° |               | 37.698050°   |
| пеш               |   |                |          | -121.2778  | -121.277842 ° |              |
| DWR ID            | DWR_RD2   | 085_01_s _ 201 | 6_41     |            |               |              |
|                   |   | Comn           | nent Cod | de         |               |              |
|                   | A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows. |                |          |            |               |              |
| Inspector Comment |   |                |          |            |               |              |
|                   |   |                |          |            |               |              |
|                   |   |                |          |            |               |              |

No Photos

| LM Start | 3.03           | Rating **      | С     | Issue No.  |        | 24           |
|----------|----------------|----------------|-------|------------|--------|--------------|
| LM End   | 3.03           | Issue Type +   | Ма    | Location * |        | LS           |
| Catagory | Earthen Levee  |                |       | GPS La     | atitud | e/Longitude  |
| Calegory | Category       |                | Start |            | End    |              |
| Item     | Animal Control |                |       | 37.6971    | 15°    | 37.697115°   |
| item     |                |                |       | -121.2778  | 70°    | -121.277870° |
| DWR ID   | DWR_RD2        | 085_01_f _ 201 | 5_24  |            |        |              |

No Photos

Comment Code

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

|                   |                        | D // ++        |          |               | 1      |              | _ |
|-------------------|------------------------|----------------|----------|---------------|--------|--------------|---|
| LM Start          | 3.34                   | Rating **      | N        | Issue No.     |        | 30           |   |
| LM End            | 3.34                   | Issue Type +   | Ma       | Location *    | WS     |              |   |
| Category          | Earthen L              | evee           |          | GPS L         | atitud | le/Longitude |   |
| Category          |                        |                |          | Start         |        | End          |   |
| Item              | Item Trim / Thin Trees |                |          | 37.6930       | )19°   | 37.693019    | 0 |
| item              |                        |                |          | -121.277892 ° |        | -121.277892  | 0 |
| DWR ID            | DWR_RD2                | 085_01_s _ 201 | 4_30     |               |        |              |   |
|                   |                        | Comn           | nent Cod | de            |        |              |   |
| T5 : Tree s       | stumps.                |                |          |               |        |              |   |
|                   |                        |                |          |               |        |              |   |
| Inspector Comment |                        |                |          |               |        |              |   |
|                   |                        |                |          |               |        |              |   |
|                   |                        |                |          |               |        |              |   |

| * Location                          | ** Rating                |   | + Issue Type                      |
|-------------------------------------|--------------------------|---|-----------------------------------|
| LS : Land Side N/A : Not Applicable | A : Acceptable           | N : Not Inspected/Rated                 | Ma : Maintenance Deficiancy       |
| WS: Water Side                      | M : Minimally Acceptable | C : Corrected                           | Ob : Design & System Obsolescence |
| CR : Crown                          | U : Unacceptable         | A/W : Acceptable but Monitor & Maintain | En : Enforcement                  |

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2016

### **Reclamation District No. 2085 Kasson**

| Waterway                      | Bank | Unit Miles | Inspection<br>Start/End  | Inspector           |
|-------------------------------|------|------------|--------------------------|---------------------|
| Unit No. 01 San Joaquin River | Left | 5.29       | 10/19/2016<br>10/19/2016 | Maksim<br>Khashchuk |

| LM Start                        | 3.38                            | Rating **            | С        | Issue No.    |        | 43           |  |
|---------------------------------|---------------------------------|----------------------|----------|--------------|--------|--------------|--|
| LM End                          | 3.38                            | Issue Type +         | Ma       | Location *   |        | LS           |  |
| Catagony                        | Earthen L                       | evee                 |          | GPS La       | atitud | e/Longitude  |  |
| Category                        |                                 |                      |          | Start        |        | End          |  |
| Itom                            | Item Animal Control             |                      |          | 37.6925      | 65 °   | 37.692565°   |  |
| пеш                             |                                 |                      |          | -121.2780    | 12°    | -121.278012° |  |
| DWR ID                          | /R ID DWR_RD2085_01_s _ 2016_43 |                      |          |              |        |              |  |
|                                 |                                 | Comn                 | nent Cod | de           |        |              |  |
| A3 : No roo<br>compact o        |                                 | le, but rodent rows. | burrows  | visible; nee | ed to  | backfill and |  |
|                                 |                                 | Inspecto             | or Comm  | nent         |        |              |  |
| LMA repaired the rodent damage. |                                 |                      |          |              |        |              |  |
|                                 |                                 |                      |          |              |        |              |  |
|                                 |                                 |                      |          |              |        |              |  |
|                                 |                                 |                      |          |              |        |              |  |

No Photos

| LM Start                         | 3.55           | Rating **              | A/W | Issue No.  |     | 44           |
|----------------------------------|----------------|------------------------|-----|------------|-----|--------------|
| LM End                           | 3.55           | Issue Type +           | Ma  | Location * |     | LS           |
| Category Earthen Levee           |                | GPS Latitude/Longitude |     |            |     |              |
| Calegory                         |                |                        |     | Start      |     | End          |
| Item                             | Animal Control |                        |     | 37.6904    | 18° | 37.690418°   |
| item                             |                |                        |     | -121.2768  | 15° | -121.276815° |
| DWR ID DWR_RD2085_01_s _ 2016_44 |                |                        |     |            |     |              |
| Comment Code                     |                |                        |     |            |     |              |
|                                  |                |                        |     |            |     |              |

A3: No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

LMA has bait stations on the levee slope.

No Photos

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2016

### **Reclamation District No. 2085 Kasson**

| Waterway                      | Bank | Unit Miles | Inspection<br>Start/End  | Inspector           |
|-------------------------------|------|------------|--------------------------|---------------------|
| Unit No. 01 San Joaquin River | Left | 5.29       | 10/19/2016<br>10/19/2016 | Maksim<br>Khashchuk |

| LM Start                         | 3.57      | Rating **            | М        | Issue No.             |        | 45           |
|----------------------------------|-----------|----------------------|----------|-----------------------|--------|--------------|
| LM End                           | 3.57      | Issue Type +         | Ma       | Location *            |        | LS           |
| Category                         | Earthen L | evee                 |          | GPS La                | atituc | le/Longitude |
| Calegory                         |           |                      |          | Start                 |        | End          |
| Item                             | Animal Co | ontrol               |          | 37.6901               | 61 °   | 37.690161 °  |
| пеш                              |           |                      |          | -121.276543 ° -121.27 |        |              |
| DWR ID DWR_RD2085_01_s _ 2016_45 |           |                      |          |                       |        |              |
|                                  |           | Comn                 | nent Cod | de                    |        |              |
| A3 : No ro compact o             |           | le, but rodent rows. | burrows  | visible; ne           | ed to  | backfill and |
|                                  |           | Inspecto             | or Comm  | nent                  |        |              |
|                                  |           |                      |          |                       |        |              |
|                                  |           |                      |          |                       |        |              |
|                                  |           |                      |          |                       |        |              |
|                                  |           |                      |          |                       |        |              |
|                                  |           |                      |          |                       |        |              |

| hoto 1 of 2 : FA_2016_RD2  | 085_113_45_201   | 61024_00050.jpg |
|--|--|-----------------|
| Service of the servic | A  |                 |
| 9/18   |  |                 |
|  | The state of the s |                 |
| N. C.  |  |                 |
| The same   |  |                 |
|  | TO THE STATE OF  |                 |
|  |  |                 |
| The state of the s | A N  |                 |
|  |  |                 |
| THE STATE OF   | 7 10 100   |                 |
|  | -  | 100 FS12016     |
|  |  | MAN NEWSON      |

View of the rodent burrows on the landside levee slope. Fall 2016

 LM Start
 3.57
 Rating \*\*
 M
 Issue No.
 45 (cont)

 LM End
 3.57
 Issue Type +
 Ma
 Location \*
 LS

Photo 2 of 2 : FA\_2016\_RD2085\_113\_45\_20160914\_00018.jpg

View of the rodent burrows on the landside levee slope.

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2016

### **Reclamation District No. 2085 Kasson**

| Waterway                      | Bank | Unit Miles | Inspection<br>Start/End  | Inspector           |
|-------------------------------|------|------------|--------------------------|---------------------|
| Unit No. 01 San Joaquin River | Left | 5.29       | 10/19/2016<br>10/19/2016 | Maksim<br>Khashchuk |

| LM Start     | 3.62    | 3.62 Rating ** A/W |                        |               |     | 2            |
|--------------|---------|--------------------|------------------------|---------------|-----|--------------|
| LM End       | 3.75    | Issue Type +       | Ма                     | Location * WS |     | WS           |
| Supplemental |         |                    | GPS Latitude/Longitude |               |     |              |
| Category     |         |                    | Start                  |               | End |              |
| ltom         | DWR Ero | sion Survey        |                        | 37.6885       | 45° | 37.688545°   |
| пеш          | Item    |                    |                        | -121.2762     | 98° | -121.276298° |
| DWR ID       |         |                    |                        |               |     |              |
| Comment Code |         |                    |                        |               |     |              |

#### Inspector Comment

07/08/2016: The erosion in the berm was found slightly progressed toward the levee toe. Signs of fresh erosion at the site are visible. 08/19/2015: No significant change observed.

07/17/2014: No significant change observed.

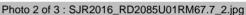
09/10/2013: No significant change observed.

12/04/2012: This site has been documented before, and a cost estimate to repair has been prepared dated 05/09/2010. The fresh cut shows the erosion is developing. The berm width is at least 42 feet. Sticks were placed at three locations along the river bank, with 3 sticks 5 feet apart at each location. [2016 Site ID:RD2085U01RM67.7]

| LM Start | 3.62 | Rating **    | A/W | Issue No.  | 2 (cont) |
|----------|------|--------------|-----|------------|----------|
| LM End   | 3.75 | Issue Type + | Ma  | Location * | WS       |



View of the downstream end of the erosion





Close view of the erosion.

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2016

### **Reclamation District No. 2085 Kasson**

| Waterway                      | Bank | Unit Miles | Inspection<br>Start/End  | Inspector           |
|-------------------------------|------|------------|--------------------------|---------------------|
| Unit No. 01 San Joaquin River | Left | 5.29       | 10/19/2016<br>10/19/2016 | Maksim<br>Khashchuk |

| LM Start              | 3.62    | 3.62 Rating ** A/W   |        |            |             | 2 (cont)     |
|-----------------------|---------|----------------------|--------|------------|-------------|--------------|
| LM End                | 3.75    | 3.75 Issue Type + Ma |        | Location * |             | WS           |
| Category Supplemental |         |                      | GPS La | atitud     | e/Longitude |              |
|                       |         |                      | Start  |            | End         |              |
| Item                  | DWR Ero | sion Survey          |        | 37.6885    | 45°         | 37.688545°   |
| item                  | em      |                      |        | -121.2762  | 98°         | -121.276298° |
| DWR ID                |         |                      |        |            |             |              |
| Comment Code          |         |                      |        |            |             |              |

### Inspector Comment

07/08/2016: The erosion in the berm was found slightly progressed toward the levee toe. Signs of fresh erosion at the site are visible.

08/19/2015: No significant change observed. 07/17/2014: No significant change observed.

09/10/2013: No significant change observed.

12/04/2012: This site has been documented before, and a cost estimate to repair has been prepared dated 05/09/2010. The fresh cut shows the erosion is developing. The berm width is at least 42 feet. Sticks were placed at three locations along the river bank, with 3 sticks 5 feet apart at each location. [2016 Site ID:RD2085U01RM67.7]



Close view of the erosion.

| LM Start                         | 3.65           | Rating **    | М  | Issue No.              |     | 37           |  |
|----------------------------------|----------------|--------------|----|------------------------|-----|--------------|--|
| LM End                           | 3.65           | Issue Type + | Ma | Location *             | LS  |              |  |
| Category Earthen Levee           |                |              |    | GPS Latitude/Longitude |     |              |  |
| Category                         | Category       |              |    | Start                  |     | End          |  |
| Item                             | Animal Control |              |    | 37.6890                | 90° | 37.689090°   |  |
| пеш                              | tem            |              |    |                        | 26° | -121.276326° |  |
| DWR ID DWR_RD2085_01_f _ 2016_37 |                |              |    |                        |     |              |  |
| Comment Code                     |                |              |    |                        |     |              |  |

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2016

### **Reclamation District No. 2085 Kasson**

| Waterway                      | Bank | Unit Miles | Inspection<br>Start/End  | Inspector           |
|-------------------------------|------|------------|--------------------------|---------------------|
| Unit No. 01 San Joaquin River | Left | 5.29       | 10/19/2016<br>10/19/2016 | Maksim<br>Khashchuk |

| LM Start                         | 3.71            | <b>3.71</b> Rating ** A/W |                        |            |              | 25          |
|----------------------------------|-----------------|---------------------------|------------------------|------------|--------------|-------------|
| LM End                           | 3.71            | Issue Type +              | Ma                     | Location * |              | WS          |
| Category                         | Earthen L       | evee                      | GPS Latitude/Longitude |            |              |             |
| Calegory                         | gory            |                           |                        |            |              | End         |
| Item                             | Slope Stability |                           |                        | 37.6882    | 16°          | 37.688216 ° |
| item                             |                 |                           | -121.27660             | )3°        | -121.276603° |             |
| DWR ID DWR_RD2085_01_f _ 2015_25 |                 |                           |                        |            |              |             |

#### Comment Code

S3: Repair the levee slope damaged by vehicle traffic and prevent access where possible.

#### Inspector Comment

Control levee access to prevent damage to levee slopes by vehicle.

### Photo 1 of 1: FA\_2016\_RD2085\_113\_25\_20160914\_00009.jpg



View of the waterside levee slope damaged by vehicle.

| LM Start | 3.74                      | <b>3.74</b> Rating ** A/W |    |            |     | 26           |  |
|----------|---------------------------|---------------------------|----|------------|-----|--------------|--|
| LM End   | 3.74                      | Issue Type +              | Ma | Location * |     | WS           |  |
| Category | evee                      | GPS Latitude/Longitude    |    |            |     |              |  |
| Category |                           |                           |    | Start      |     | End          |  |
| Item     | Slope Stability           |                           |    |            | 41° | 37.687841 °  |  |
| item     |                           |                           |    | -121.2766  | 78° | -121.276678° |  |
| DWR ID   | DWR_RD2085_01_f _ 2015_26 |                           |    |            |     |              |  |

#### Comment Code

S2: Repair the levee slope damaged by foot traffic and prevent access where possible.

### Inspector Comment

Area should be maintained to prevent further levee damage.

| F11010 1 01 1 . FA_2010_KD2005_115_20_2 | .0161024_00049.jpg |
|---|--------------------|
|   |                    |



View of the foot path on the levee slope.

| LM Start | 3.78                      | Rating **    | M  | Issue No.  |       | 46           |   |
|----------|---------------------------|--------------|----|------------|-------|--------------|---|
| LM End   | 3.78                      | Issue Type + | Ma | Location * |       | LS           |   |
| Category | Earthen Levee             |              |    |            | tituc | le/Longitude |   |
| Category | Category                  |              |    |            |       | End          |   |
| Item     | Slope Stability           |              |    | 37.6872    | 53°   | 37.687253    | 0 |
| item     |                           |              |    | -121.2767  | 80°   | -121.276780  | 0 |
| DWR ID   | DWR_RD2085_01_s _ 2016_46 |              |    |            |       |              |   |

#### Comment Code

S3: Repair the levee slope damaged by vehicle traffic and prevent access where possible.

#### Inspector Comment

| * Location                          | ** Rating                |   | + Issue Type                      |
|-------------------------------------|--------------------------|---|-----------------------------------|
| LS : Land Side N/A : Not Applicable | A : Acceptable           | N : Not Inspected/Rated                 | Ma : Maintenance Deficiancy       |
| WS: Water Side                      | M : Minimally Acceptable | C : Corrected                           | Ob : Design & System Obsolescence |
| CR · Crown                          | II · I Inaccentable      | AMM · Acceptable but Monitor & Maintain | En : Enforcement                  |

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2016

### **Reclamation District No. 2085 Kasson**

| Waterway                      | Bank | Unit Miles | Inspection<br>Start/End  | Inspector           |
|-------------------------------|------|------------|--------------------------|---------------------|
| Unit No. 01 San Joaquin River | Left | 5.29       | 10/19/2016<br>10/19/2016 | Maksim<br>Khashchuk |

| LM Start                         | 3.86      | Rating **            | М        | Issue No.   |       | 36           |  |  |
|----------------------------------|-----------|----------------------|----------|-------------|-------|--------------|--|--|
| LM End                           | 3.91      | Issue Type +         | Ma       | Location *  | LS    |              |  |  |
| 0-4                              | evee      | GPS L                | atitud   | e/Longitude |       |              |  |  |
| Category                         |           |                      |          | Start       |       | End          |  |  |
| Item                             | Animal Co | ontrol               |          | 37.6860     | )59°  | 37.685340°   |  |  |
| item                             |           |                      |          | -121.2767   | '45 ° | -121.276594° |  |  |
| DWR ID DWR_RD2085_01_f _ 2016_36 |           |                      |          |             |       |              |  |  |
|                                  |           | Comn                 | nent Cod | de          |       |              |  |  |
| A3 : No roccompact o             |           | le, but rodent rows. | burrows  | visible; ne | ed to | backfill and |  |  |
|                                  |           | Inspecto             | or Comm  | nent        |       |              |  |  |
|                                  |           |                      |          |             |       |              |  |  |
|                                  |           |                      |          |             |       |              |  |  |
|                                  |           |                      |          |             |       |              |  |  |



View of the rodent holes on the levee slope.

| LM Start                         | 4.15           | Rating **    | М                      | Issue No.  |     | 34           |  |  |
|----------------------------------|----------------|--------------|------------------------|------------|-----|--------------|--|--|
| LM End                           | 4.15           | Issue Type + | Ma                     | Location * |     | WS           |  |  |
| Category Earthen Levee           |                |              | GPS Latitude/Longitude |            |     |              |  |  |
| Calegory                         |                |              | Start                  |            | End |              |  |  |
| Item                             | Animal Control |              |                        | 37.6824    | 95° | 37.682495 °  |  |  |
| item                             |                |              |                        | -121.2741  | 69° | -121.274169° |  |  |
| DWR ID DWR_RD2085_01_f _ 2016_34 |                |              |                        |            |     |              |  |  |
| Comment Code                     |                |              |                        |            |     |              |  |  |
| A 0 A 1                          |                |              |                        |            |     |              |  |  |

A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comment



View of the rodent holes on the levee slope.

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2016

### **Reclamation District No. 2085 Kasson**

| Waterway                      | Bank | Unit Miles | Inspection<br>Start/End  | Inspector           |
|-------------------------------|------|------------|--------------------------|---------------------|
| Unit No. 01 San Joaquin River | Left | 5.29       | 10/19/2016<br>10/19/2016 | Maksim<br>Khashchuk |

| LM Start                         | 4.46         | Rating **    | N       | Issue No.     |        | 32            |  |  |
|----------------------------------|--------------|--------------|---------|---------------|--------|---------------|--|--|
| LM End                           | 4.46         | Issue Type + | Ма      | Location *    |        | LS            |  |  |
| Category Earthen Levee           |              |              |         | GPS La        | atitud | le/Longitude  |  |  |
| Calegory                         |              |              |         | Start         |        | End           |  |  |
| Item                             | Trim / Thi   | n Trees      |         | 37.6816       | 05°    | 37.681605°    |  |  |
| item                             |              |              |         | -121.268882 ° |        | -121.268882 ° |  |  |
| DWR ID DWR_RD2085_01_s _ 2012_32 |              |              |         |               |        |               |  |  |
|                                  | Comment Code |              |         |               |        |               |  |  |
| T5 : Tree s                      | stumps.      |              |         |               |        |               |  |  |
|                                  |              | la a a a a t | 0       |               |        |               |  |  |
|                                  |              | Inspecto     | or Comm | ient          |        |               |  |  |
|                                  |              |              |         |               |        |               |  |  |
|                                  |              |              |         |               |        |               |  |  |
|                                  |              |              |         |               |        |               |  |  |
|                                  |              |              |         |               |        |               |  |  |



11/03/2011 Large stump on landside slope.

| LM Start | 5.02          | Rating **      | С     | Issue No.  |     | 22           |  |        |             |
|----------|---------------|----------------|-------|------------|-----|--------------|--|--------|-------------|
| LM End   | 5.02          | Issue Type +   | Ma    | Location * |     | LS           |  |        |             |
| Category | Earthen Levee |                |       |            |     |              |  | atitud | e/Longitude |
| Calegory |               |                | Start |            | End |              |  |        |             |
| Item     | Vegetatio     | n              |       | 37.6778    | 30° | 37.677830°   |  |        |             |
| пеш      |               |                |       | -121.2687  | 69° | -121.268769° |  |        |             |
| DWR ID   | DWR_RD2       | 085_01_f _ 201 | 3_22  |            |     |              |  |        |             |
|          |               |                |       |            |     |              |  |        |             |

**Comment Code** 

V2 : Remove the wild growth other than native grasses from the levee slopes.

#### Inspector Comment

LMA mowed the vegetation.

No Photos

| LM Start | 5.05           | Rating **    | М          | Issue No.              | 51          |           |   |  |
|----------|----------------|--------------|------------|------------------------|-------------|-----------|---|--|
| LM End   | 5.05           | Issue Type + | Ма         | Location *             | LS          |           |   |  |
| Category | Earthen Levee  |              |            | GPS Latitude/Longitude |             |           |   |  |
| Category | egory          |              |            | Start                  |             | End       |   |  |
| Item     | Slope Sta      | bility       |            | 37.67769               | 1°          | 37.677691 | 0 |  |
| пеш      | item           |              | -121.26923 | s°                     | -121.269236 | 0         |   |  |
| DWR ID   | 085_01_s _ 201 |              | , ,        |                        |             |           |   |  |
|          | Comment Code   |              |            |                        |             |           |   |  |

#### Comment Code

S3: Repair the levee slope damaged by vehicle traffic and prevent access where possible.

#### Inspector Comment



View of the tire tracks on the levee slope.

| * Location   | ** Rating  |   | + Issue Type   |
|--|--|---|--|
| LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown | A : Acceptable M : Minimally Acceptable U : Unacceptable | N : Not Inspected/Rated<br>C : Corrected<br>A/W : Acceptable but Monitor & Maintain | Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement |

Page 13 of 13

#### Flood Control Project Maintenance Levee Inspections

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2016

### **Reclamation District No. 2085 Kasson**

| Waterway                      | Bank | Unit Miles | Inspection<br>Start/End  | Inspector           |
|-------------------------------|------|------------|--------------------------|---------------------|
| Unit No. 01 San Joaquin River | Left | 5.29       | 10/19/2016<br>10/19/2016 | Maksim<br>Khashchuk |

| LM Start                         | 5.20             | Rating **          | М        | Issue No.      |        | 52          |  |  |
|----------------------------------|------------------|--------------------|----------|----------------|--------|-------------|--|--|
| LM End                           | 5.20             | Issue Type +       | Ma       | Location *     | LS     |             |  |  |
| Earthen Levee                    |                  |                    |          | GPS La         | atitud | e/Longitude |  |  |
| Category                         |                  |                    |          | Start          |        | End         |  |  |
| Item                             | Slope Sta        | bility             |          | 37.6756        | 20°    | 37.675620°  |  |  |
| item                             | -121.269359 ° -1 |                    |          |                |        |             |  |  |
| DWR ID DWR_RD2085_01_s _ 2016_52 |                  |                    |          |                |        |             |  |  |
|                                  |                  | Comn               | nent Cod | de             |        |             |  |  |
| S3 : Repai<br>access wh          |                  | slope damag<br>le. | ed by ve | ehicle traffic | and    | l prevent   |  |  |
|                                  |                  | Inspecto           | or Comm  | nent           |        |             |  |  |
|                                  |                  |                    |          |                |        |             |  |  |
|                                  |                  |                    |          |                |        |             |  |  |
|                                  |                  |                    |          |                |        |             |  |  |
|                                  |                  |                    |          |                |        |             |  |  |



View of the tire tracks on the levee slope.

| LM Ctort                         | 5.24       | Rating **    | N        | Issue No.     |            | 29            |  |  |
|----------------------------------|------------|--------------|----------|---------------|------------|---------------|--|--|
| LM Start                         | 5.24       |              |          |               |            |               |  |  |
| LM End                           | 5.24       | Issue Type + | Ма       | Location *    |            | WS            |  |  |
| Category Earthen Levee           |            |              |          | GPS La        | atitud     | e/Longitude   |  |  |
| Category                         |            |              |          | Start         |            | End           |  |  |
| Item                             | Trim / Thi | n Trees      | 37.6750  | 99°           | 37.675099° |               |  |  |
| item                             |            |              |          | -121.269264 ° |            | ° -121.269264 |  |  |
| DWR ID DWR_RD2085_01_f _ 2015_29 |            |              |          |               |            |               |  |  |
|                                  |            | Comn         | nent Cod | de            |            |               |  |  |
| T5 : Tree s                      | stumps.    |              |          |               |            |               |  |  |
| Inspector Comment                |            |              |          |               |            |               |  |  |
|                                  |            |              |          |               |            |               |  |  |
|                                  |            |              |          |               |            |               |  |  |
|                                  |            |              |          |               |            |               |  |  |



View of the tree stump.

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2016

### **Reclamation District No. 2085 Kasson**

| Waterway                      | Bank | Unit Miles | Inspection<br>Start/End  | Inspector           |
|-------------------------------|------|------------|--------------------------|---------------------|
| Unit No. 02 San Joaquin River |      | 0.70       | 10/19/2016<br>10/19/2016 | Maksim<br>Khashchuk |

| LM Start   | 0.02 | Rating **    | Α                      | Issue No.  |      | 1            |  |
|--|------|--------------|------------------------|------------|------|--------------|--|
| LM End   | 0.69 | Issue Type + | Ma                     | Location * |      | WS           |  |
| Category Earthen Levee   |      |              | GPS Latitude/Longitude |            |      |              |  |
| Calegory   |      |              |                        | Start En   |      |              |  |
| Vegetation   |      |              |                        | 37.7050    | )41° | 37.714004°   |  |
| пеш  | item |              |                        |            | 70°  | -121.269690° |  |
| DWR ID DWR_RD2085_02_f _ 2016_1  |      |              |                        |            |      |              |  |
| Comment Code   |      |              |                        |            |      |              |  |
| V1 : Control annual grass and weeds on the levee slopes and easements. |      |              |                        |            |      |              |  |
|  |      | Inspecto     | or Comm                | nent       |      |              |  |
| LMA has good vegetation control this season.                           |      |              |                        |            |      |              |  |
|  |      |              |                        |            |      |              |  |
|  |      |              |                        |            |      |              |  |
|  |      |              |                        |            |      |              |  |

Photo 1 of 1 : FA\_2016\_RD2085\_114\_1\_20161024\_00001.jpg

View of the well maintained vegetation on the levee slope.

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2016

### **Reclamation District No. 2085 Kasson**

| Waterway                      | Bank | Unit Miles | Inspection<br>Start/End  | Inspector           |
|-------------------------------|------|------------|--------------------------|---------------------|
| Unit No. 03 San Joaquin River |      | 0.29       | 10/19/2016<br>10/19/2016 | Maksim<br>Khashchuk |

| LM Start                        | 0.01   | Rating **    | Α                      | Issue No.  | 4          |              |
|---------------------------------|--------|--------------|------------------------|------------|------------|--------------|
| LM End                          | 0.01   | Issue Type + | Ma                     | Location * | WS         |              |
| Category Earthen Levee          |        |              | GPS Latitude/Longitude |            |            |              |
|                                 |        |              |                        | Start      |            | End          |
| Vegetation                      |        |              | 37.6805                | 74°        | 37.680574° |              |
| пеш                             | Item 5 |              |                        | -121.2645  | 85 °       | -121.264585° |
| DWR ID DWR_RD2085_03_f _ 2016_4 |        |              |                        |            |            |              |
| Comment Code                    |        |              |                        |            |            |              |

V1 : Control annual grass and weeds on the levee slopes and easements.

#### Inspector Comment

LMA did a great job controlling the vegetation this season.



View of the well maintained vegetation on the levee slope.

| LM Start                        | 0.21                  | Rating **    | U                      | Issue No.  | 1   |               |  |
|---------------------------------|-----------------------|--------------|------------------------|------------|-----|---------------|--|
| LM End                          | 0.23                  | Issue Type + | Ма                     | Location * |     | WS            |  |
| Catagonia Earthen Levee         |                       |              | GPS Latitude/Longitude |            |     |               |  |
| Category                        |                       |              |                        |            |     | End           |  |
| Item                            | Erosion / Bank Caving |              |                        | 37.6827    | 98° | 37.683052°    |  |
| item                            |                       |              |                        | -121.2620  | 59° | -121.261851 ° |  |
| DWR ID DWR_RD2085_03_s _ 2014_1 |                       |              |                        |            |     |               |  |
| 0 10 1                          |                       |              |                        |            |     |               |  |

#### Comment Code

E2: Schedule repair of erosion site prior to the next inspection.

### Inspector Comment

Erosion of the waterside levee slope has been observed. The erosion is about 3 feet tall vertical from the slope to the base of projected levee toe.

| LM Start | 0.21 | Rating **    | U  | Issue No.  | 1 (cont) |
|----------|------|--------------|----|------------|----------|
| LM End   | 0.23 | Issue Type + | Ма | Location * | WS       |

#### Photo 1 of 2: FA\_2016\_RD2085\_115\_1\_20161024\_00003.jpg



View of the erosion at the waterside levee toe. Fall 2016.

Photo 2 of 2: FA\_2016\_RD2085\_115\_1\_20160914\_00001.jpg



View of the erosion at the waterside levee toe.

| * Location   | ** Rating  |   | + Issue Type   |
|--|--|---|--|
| LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown | A : Acceptable M : Minimally Acceptable U : Unacceptable | N : Not Inspected/Rated<br>C : Corrected<br>A/W : Acceptable but Monitor & Maintain | Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement |

### Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2016

### **Reclamation District No. 2085 Kasson**

| Waterway                      | Bank | Unit Miles | Inspection<br>Start/End  | Inspector           |
|-------------------------------|------|------------|--------------------------|---------------------|
| Unit No. 03 San Joaquin River |      | 0.29       | 10/19/2016<br>10/19/2016 | Maksim<br>Khashchuk |

| LM Start               | 0.22  | Rating **             | С        | Issue No.  |        | 6             |  |
|------------------------|---|-----------------------|----------|------------|--------|---------------|--|
| LM End                 | 0.22  | Issue Type +          | Ma       | Location * |        | WS            |  |
| Category Earthen Levee |   |                       |          | GPS La     | atitud | e/Longitude   |  |
| Calegory               |   |                       |          | Start      |        | End           |  |
| Item                   | Animal Control  |                       |          |            | 44°    | 37.682844°    |  |
| пеш                    |   | -121.262002 ° -121.26 |          |            |        | -121.262002 ° |  |
| DWR ID                 | DWR ID DWR_RD2085_03_f _ 2015_6   |                       |          |            |        |               |  |
|                        |   | Comn                  | nent Cod | de         |        |               |  |
|                        | A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows. |                       |          |            |        |               |  |
| Inspector Comment      |   |                       |          |            |        |               |  |
|                        |   |                       |          |            |        |               |  |
|                        |   |                       |          |            |        |               |  |
|                        |   |                       |          |            |        |               |  |

No Photos

| LM Start                        | 0.25 | Rating **    | М                      | Issue No.  | 7          |              |
|---------------------------------|------|--------------|------------------------|------------|------------|--------------|
| LM End                          | 0.25 | Issue Type + | Ma                     | Location * | WS         |              |
| Category Earthen Levee          |      |              | GPS Latitude/Longitude |            |            |              |
| Category                        |      |              | Start                  |            | End        |              |
| Slope Stability                 |      |              | 37.6832                | 74°        | 37.683274° |              |
| item                            | item |              |                        | -121.2618  | 39°        | -121.261839° |
| DWR ID DWR_RD2085_03_f _ 2016_7 |      |              |                        |            |            |              |
| Comment Code                    |      |              |                        |            |            |              |

S3: Repair the levee slope damaged by vehicle traffic and prevent access where possible.

Inspector Comment



Photo 1 of 1: FA\_2016\_RD2085\_115\_7\_20161024\_00004.jpg

View of the tire tracks on the levee slope.